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Do fertility a awarness based methods (FAM) promote a good marrital relationship?

Situation after chilldbirth as a special moment for creating marital unity

Abstract:

The publication presents current research on the relationship between marital unity and the choice of one of the fertility awareness based methods (FAM) for family planning. Most data confirm that the spouses' lifestyle (inscribed in the natural cycle of female fertility and infertility) strengthens their relationship, increases creativity, promotes communication improvement, teaches them perseverance and fosters fertility care. Advances in knowledge in the field of physiology of procreation have made it possible to elaborate modern methods of natural family planning (NFP) which are similar to criteria of the ideal method. The situation after childbirth promotes the development of non-genital unity of parents. It may become an opportunity for a florescence of spiritual and intellectual life and lead to creative sexuality of a couple. Parents after labor receive support from a qualified FAM teacher or instructor. It would be worthwhile if medical staff could also recommend FAM.

Key words: marital unity, NFP (natural family planning), FAM (Fertility Awareness based Methods), procreative health

Abstrakt:

Publikacja prezentuje aktualne badania naukowe dotyczące relacji w małżeństwie w z związku z wyborem jednej z metod rozpoznawania płodności w celach planowania rodziny. Większość danych potwierdza, że styl życia małżonków wpisany w naturalny cykl przemian faz płodności i niepłodności kobiecej umacnia ich związek, jest twórczy, uczy wytrwałości i sprzyja trosce o zdrowie prokreacyjne. Postęp wiedzy w dziedzinie fizjologii prokreacji przyczynił się do opracowania współczesnych metod naturalnego planowania rodziny, które są zbliżone do kryteriów metody idealnej. Sytuacja po porodzie sprzyja rozwojowi integralnie ujmowanej jedności rodziców - może być okazją do rozkwitu sfery duchowej, intelektualnej, twórczej i kreatywnej seksualności pary. Wsparciem dla rodziców w tym czasie jest wykwalifikowany nauczyciel lub instruktor MRP. Warto by pracownicy służby zdrowia również zalecali MRP. **Słowa kluczowe:** jedność małżeńska, NPR (Naturalne Planowanie Rodziny), MRP (Metody Rozpoznawania Płodności), zdrowie prokreacyjne

Introduction

Advances in natural science at the turn of the 20th and 21st centuries made it possible to formulate basic principles of physiology of procreation (Billings, 1964; Flynn, 1996; Keef, 1962; Marshall, 1968; Rotzer, 1978; Thyma, 1973, et al.). a rapid development of science was accompanied by equally dynamic social changes including the movement of emancipation of women for whom a high procreative mortality and morbidity represented one of the crucial problems. Consequently, there was an urgent necessity to elaborate methods helping parents to plan the time of conception and the amount of their offsprings, as well as to strengthen their relationship. The year 1910 marked a discovery: the corpus luteum is active for 13 days and the ovulation occurs 12-13 days prior to the menstrual bleeding. Thanks to this discovery, Kyasuko Ogino and Herman Klaus elaborated the first calendar method of family planning (1924-1929) having nowadays a historical value (Ohme Peters and Fedra Workgroup, 2019; Troszyński, 2009). Its high unreliability in birth control initiated the development of modern methods of family planning, with two fundamentally opposite directions of action. The knowledge of a cyclic female fertility and of a permanent male fertility made it possible to elaborate various fertility awareness methods based on a current follow-up of one or more so called biomarkers of fertility which set the time to put off or to plan the conception of a child, without interfering with the course of the sexual act or with the menstrual cycle. Adapting the sexual intercourse to current procreative goals results from accepting the natural rhythm of changes in the female cycle. Contraception does not consider fertility as an integral part of health, and it is based on methods of a temporary or permanent sterilization (Jarczewska, 2015; Suszczewicz, Ślizień Kuczapska, 2012), making it possible to have unlimited sexual contacts.

A couple's fertility and sexuality constitute an important element creating their bonds. a sexual contact takes place in all aspects, i.e., physical, emotional, spiritual, rational, and creative. Each of these spheres, by complementing each other, allows parents to gain satisfaction from a sexual intercourse and helps (or does not help) them to gain a psychophysical balance (Szturomska, Jóźwik, 2016). The post partum period is a special moment for creating a deeper relationship between parents, it may promote their new and reacher re-initiation (Smoliński, 2010). The present article aims at answering the following question: Does using FAM strengthen a relationship and a bond? Does it promote the satisfaction of both partners (taking into account a special moment after childbirth)?

1. Types of Fertility Awareness Based Methods (FAM)

Modern fertility awareness based methods can be divided into: classical ones based on a daily self-follow-up of so called biomarkers of fertility, and into new technologies. Classical methods are one-indicator or multiple indicators daily follow-ups of one or more selected bimarkers of female fertility, being based on detailed rules of selfobservation elaborated for a given method. The choice should take into account individual needs of users, their expectations and current procreative plans. Applying FAM can also help in diagnosis and therapy of reproductive health disorders (Blackwell, Cortés, Vigil, 2012; Meier, Ombelet, Panis, Thijssen, 2014; Szymaniak, Ślizień-Kuczapska, 2016; Vigil, 2017).

The Bilings' method and the Creighton Fertility System model are examples of classical one-indicator methods based on a follow-up of the cervical mucus. One-indicator methods also include the strict thermal method. Multiple indicator methods, so called sympto-thermal methods, e.g., the Rotzer method, the Kippley method, the Flynn, Kramarek method, imply the necessity to monitor two out of three biomarkers, i.e., cervical mucus, basal body temperature, and changes in the uterine cervix (Flynn, 1996; Kippley, 1997; Kramarek, 2006; Rotzer, 1978).

Furthermore, we can distinguish methods made of: a selfobservation of one of the biomarkers in combination with computations (extended thermal method) or with hormonal tests, made of an analyzer of electrical resistance of saliva or cervical mucus, of their microscopic picture or mineral composition, use of mobile techniques (Ohme et al., 2019; *Recommendations of the PTG - Polish Gynaecological Society* 2010; Ślizień-Kuczapska, 2007; Troszyński, 2009).

According to recent studies, the efficacy of multi-indicator methods in putting off the conception is comparable to those of hormonal contraception, with typical use of a method, its efficacy makes up 1-2 unplanned pregnancies per 100 women in a year (Manhart, Duane, Lind, Sinai, Golden-Tevald, 2013). For the first 6 months after childbirth, for fully breastfeeding women, the lactational amenorrhoea method (LAM) is a golden standard. Its efficacy in putting off the conception makes up 98% if LAM criteria are satisfied (Ashworth, Beasley, Bown, Cambpell, Diaz, 1988; Kennedy, Rivera, McNeilly, 1989; Labbok, Cooney, Coly, 1994). In fact, universal knowledge on FAM is socially marginalized, and its deficit among medical staff is a reason for a special concern: health professionals seldom recommend the use of FAM during medical consultations (Cerańska-Goszczyńska, 2007; Dębska, Szyszka, Bączek, Dmoch-Gajzlerska, 2017; Fehring, 1995; Pallone, Bergus, 2009; Ślizień-Kuczapska, Sys, Baranowska, Tataj, 2017).

In Poland, teaching all fertility awareness-based methods acknowledged throughout the world is available thanks to a network of centres of family ministry and to a few family planning clinics associated with medical offices or with health clinics. Using FAM should be effective and fruitful in a relationship, so it is necessary to go through a specialized course of a method provided by a graduated teacher or instructor of FAM¹. It is indicated that users having completed a course still keep in touch with their FAM teacher in order to seek their advice in case of doubts. Knowledge and creative commitment of a couple in using a method is the key to success (Sujak, 2015; Wójcik, 2016). It is worth mentioning that FAM represent an element of care and protection of procreative health and account for a useful tool helping a physician to evaluate the well-being of spouses. The concepts "natural family planning" and - in particular - "responsible parenthood" play not only a health-friendly role, but also a family-friendly role by promoting deeper marital bonds, a mutual respect, a common responsibility, a self-control, and a magnanimous openness to a new life (Bassa, 2017).

2. Results of studies evaluating the spouses' satisfaction with using Natural Family Planning (NFP)

Over the years, results of studies evaluating the spouses' satisfaction with using NFP have been changing and gradually improving thanks to a development of knowledge in this field and to a high level of professionalism of people teaching FAM (Mrozowicz, 2013). For users of a FAM, Dmochowski gives criteria influencing its choice, i.a.: efficacy in planning and putting off the conception, safety of use, no need to undertake additional activities before a sexual intercourse, reversibility of action, use independent of the medical staff, acceptance of yourself and of your partner, as well as compliance with principles and values professed (Dmochowski, Cerańska Goszczyńska, 2009).

The study carried out by Crowleys in the U.S. (1966) demonstrated that out of 158 couples aged circa 34 years, with a coefficient of fertility equal to 4.9 on average, who were using the so called "marital calendar", 74% of interviewees claimed that this method was harmful to their marriage. The spouses pointed out main concerns: anxiety about an unplanned pregnancy, loss of spontaneousness in their intercourse, and problems with sexual abstinence. Nowadays this method is not recommended by NFP teachers.

Advances in elaborating modern fertility awareness methods based on a current selfobservation of female cycle have brought a new definition of so called fertility window, due to which shortening of the time of sexual abstinence when a couple puts off the conception of their child is required (Hilgers, 2004; Vigil, 2017). It implied changes in frequency of sexual activity in couples using FAM. The average monthly amount of sexual intercourses in a couple using FAM does not differ from the one in users of other methods

¹ www.fccp.pl. www.psnnpr.com, www.npr.pl, www.iner.pl, www.mio.org.pl

(Stover, Bertrand, Shelton, 2000). The frequency of sexual activity for one couple differs depending on a country and makes up from 2.6 to 8.1 times per month, with the average of 5.5 times per month, and the frequency of sexual intercourses among users of FAM makes up 5.1-5.6 times per month (Sinai, Arévalo, 2006).

Some studies indicate a high efficacy of FAM in determining fertility time in order to conceive a child (Hilgers, 2004; Rotzer, 2007), which - in case of its unreliability - accelerates the start of treatment (Frank-Hermann, Gnoth, Baur, Strowitzki, Freundl, 2005).

A German study with 900 women and with analyses of a total of 17 368 cycles (2007) demonstrated that if the principles of the multi-indicator method were applied ideally, there were 0,.6 unplanned pregnancies per 100 women per yer (Frank-Herrmann, Heil, Gnoth, Toledo, Baur, Pyper, Jenetzky, Strowitzki, Freundl, 2007). Such a high efficacy promotes creating trust in a method selected.

A positive aspect of using the thermal method was demonstrated on the basis of testimonies of spouses from the Diocese of Sandomierz (Poland). Follow-ups of cycles influenced the development of marital love, unity and intimacy and made them even deeper. Spouses noticed an increase in trust, understanding and openness to each other. According to respondents, their sexual life has become more ordered. They noticed a deeper psychological and physical intimacy, they appreciated superior values, they were liberated from the anxiety about an unplanned pregnancy. From female letters, it follows that they feel more valuable as wives and mothers, and that they experience more understanding and patience from men. Consequently, using FAM caused a decrease in marital conflicts (Rzepka, 2015).

FAM may deter potential users because of a recommended period of temporary continence. Meanwhile, psychological studies indicate the value of continence - unavailability in the context of strenthening passion. After a period of abstinence, the sexual act is more appreciated because partners have been waiting for it. Things difficult to achieve become more valuable to human beings (Jaroszek, 2012).

According to Lerner's studies, couples using FAM enjoy greater intimacy, commitment in their relation, responsibility Women experience unmixed blessing in their marriage. According to Lasota, in couples using FAM, there is an increase in mutual respect and there is an improvement in communication (Lasota, 2012).

Prof. Thomas Hilgers, author of Naprotechnology® and of the Creighton Model Fertility Care[™] system, investigated a group of 48 couples by asking them to complete questionnaires with Yes/No questions. 95% of male interviewees were satisfied with the method selected, 81% of them had a follow-up chart of their wives' menstrual cycle, 95% of them were supporting their wives in using the method, and 70.8% claimed that avoiding sexual intercourses in days considered as fertile was simple or very simple (Hilgers, 2004).

Another study (2003) examined 334 couples using FAM based on a follow-up of the cervical mucus. The average age of interviewees was 40 years, the average duration of marriage - 15 years, the average period of using NFP - 10.5 years, and the average number of children - 3. Two open questions were asked: "How did NFP help the couple interviewed?" and "How did it harm them?" a total of 2287 answers were obtained, positive ones accounted for 74%, and negative ones - for 26% (Vande Vusse Hanson, Fehring, Newman, Fox, 2003). Positive answers evaluating NFP included: reliability of the method (the opportunity to put off the conception), learning self-control, keeping healthy, strenthening the relationship (deepening the relationship), development of communication, a common responsibility, a mutual respect, appreciating sexuality, development of knowledge (understanding of the body, of the cycle and of oneself), learning different ways of expressing love, an enrichment of spirituality, a closer unity with God, compliance of methods with the teaching of the Church, openness to life. Negative answers evaluating NFP included: difficulties in a sexual relationship (hardships in abstinence, decrease in frequency of intercourses and in spontaneousness, mismatched sexual desires in partners), weakening of the relationship (anger and frustration, lack of understanding), problems resulting from the method (anxiety about an unplanned pregnancy, a possible mistake in a method).

FAM are directed towards relationships and towards human beings in all their dimensions. a relationship where a spouse does not feel fully accepted makes them gradually close their hearts to a spouse. This leads to a birth of an internal conflict, both personal and marital. Shortage of order, understatement, lack of understanding in the field of sexuality, but also in any other field, represents a source of tension and conflicts, deprives spouses of openness (Brożek, 2018).

This fact is confirmed by studies carried out by Jankowska on a group of 92 people aged 23-46 years, married, using contraception (47 people) or using NFP (55 people). Depending on the method of birth control applied, an attempt was made to evaluate the quality of the relationship and the emotional, intellectual and acting intimacy of spouses. The study revealed that couples using NFP had a higher evaluation of their relationship, a significantly higher level of intimacy and a lower level of disappointment with their relationship, in contrast to the group using contraception as a method of birth control (Jankowska, 2014).

Studies carried out by Fehring also indicate a higher self-esteem and a higher spiritual level in couples using NFP compared to those using contraception. In the group of spouses using NFP, there is a higher sexual drive and a higher satisfaction with intercourses (Fehring, 1995).

A recent publication (Unseld, Rötzer, Weigl, Masel, Manhart, 2017) presents opinions of as many as 2560 respondents: 1971 women and 589 men, 80% of them in the procreative age. 73% of respondents had a higher education, 46% of them considered their financial

status as good, 19% - as very good. The average time of using the method made up 8.5 years. 47% of interviewees had previously used contraception. Respondents were using multiindicator methods of Kippleys from Couple to Couple League (USA) and from INER (Europa) and were making a follow-up of the cervical mucus and/or of the basal body temperature. 66% of women and 71% of men admitted that using NFP had taught them to talk about sexuality, 81% of women and 83% of men claimed that they had greatly developed their knowledge in the field of procreation, and 85% of women and 82% of men noticed that getting familiar with NFP had helped them to explain to their children issues related to sexuality. Over 70% of women and men are satisfied or very satisfied with the number of sexual intercourses per month.

The results quoted were obtained on representative study groups. They give not only female, but also male opinions. Accordingly, they represent a reliable source of information on a real influence of FAM on marital life. These publications mostly indicate a beneficial and developmental influence of FAM on the quality of a relationship of spouses. Furthermore, FAM are characterized by a high efficacy in putting off the conception, by doing no harm to health, by safety, by reversibility, by a use that is independent of medical staff, and by a compliance with values professed. These features are convergent with criteria of the ideal method. Moreover, FAM have educational and prophylactic advantages for the health of users and of people close to users, e.g., of their offsprings.

3. The SPICE index as a tool helping to create marital unity in couples using FAM

According to Fijałkowski, natural family planning represents a way of a fertile experience of sexuality (Troszyński et al., 2009). To make it happen, self-development is necessary to integrate needs, desires, and aspirations. The education to sexual integration aims at combining erotism and emotionality with spirituality. The sexuality should be experienced purely and creatively, so that it changes and develops in a somato-spiritual aspect, so that it helps marital relationship and unity. In a marital act, fertility cannot be separated from unity (Brożek, 2018).

We should repeat after Fijałkowski: thanks to cortical control, a human being is free from pressure and drive. Consequently, the frequency of sexual acts in humans is equally distributed throughout the whole female menstrual cycle, and spouses learn to express feelings and bonds in different forms, depending on their age and on a situation. Within the framework of a course for users, the Creighton Model Fertility CareTM system introduces a creative programme of developing relationships, i.e., the SPICE index of fundamental dimensions of marital unity. This acronym stands for English words that define these dimensions: *spiritual, physical, intellectual, creative, emotional. This programme turns out to be extremely useful in working with couples at different stages of life. It demonstrates opportunities of* *creating a relationship in spite of the fact that (and particularly when) its somatic dimension is temporarily not recommended, e.g.,* in case of high-risk pregnancy, in case of contra-indicated sexual activity in a disease, in early post partum period, or in fertile time if parents put off the conception of a child. Developing extragenital forms of communication creates trust, a feeling of freedom and of unconditional love (Szturomska Jóźwik, 2016).

4. Post partum period and creating marital unity. Choice of natural family planning methods

The birth of the first child causes a revolution in many fields of life of spouses, and their relationship becomes richer thanks to roles of mother and father. Every child intensifies the development of parental love. In many aspects, the period after childbirth may become a particularly difficult time for marital relationships (Brożek, 2018). a transient post partum decrease in sexual activity may be promoted by early and late complaints of this period. Early complaints include, i.a: presence of lochia, pain in the perinaeum related to episiotomy and to oedema (especially after vaccum or forceps), condition after a caesarian section, painfulness and tenderness of breasts associated with the beginning of lactation, depressed mood, generalized weakness and fatigue (Piejko, 2006). Subsequent weeks may be characterized by a discomfort resulting from: vaginal dryness, presence of haemorrhoids, urinary incontinence, physiologically decreased libido, a change in breast function (from sexual to useful one) (Kaźmierczak, Gebuza, Gierszewska, Michalska, 2010; Rowland, Foxcroft, Hopman, Patel, 2005), a permanent fatigue related to getting up at night, an anxiety about having another child (Sipiński, Kazimierczak, Ciesielska, 2005). The partner's opinion on changes in the woman's body after childbirth and her own feeling of attractiveness are not meaningless (Stadnicka, Łepecka- Klusek, Pilewska-Kozak, Pawłowska-Muc, 2015).

The above-mentioned early and late factors influencing sexuality after childbirth should represent an important part of a medical consultation scheduled for the 6-8th week. Parallel to issues related to sexuality, the physician should suggest to fully breastfeeding mothers LAM as a preliminary method of family planning for the first 6 monts of their child's life (Labbok, Perez, Valdes, Sevilla, Wade, Laukaren, Cooney, Coly, Sanders, Queenan, 1994). When the LAM or another ecological method of family planning is recommended, can be avoided a paradoxal phenomenon of double protection from fertility return associated with overlapping effects of natural lactational infertility and of hormonal or mechanical contraception recommended as a complement for nonbreastfeeding mothers (Van Duong, 2012). Since the anxiety about getting pregnant again is one of the most frequently mentioned causes of avoiding sexual activity after childbirth, we should know that getting familiar with FAM and carrying out a meticulous follow-up of the woman's body help to decrease anxiety and stress (Cerańska-Goszczyńska, 2013).

Studies by K. Filipek et al. revealed that in 512 partnership systems, in 77% of cases, sexual activity was initiated after 6 weeks, i.e., after the post-partum period completed. In the first month, only 3.52% of interviewees initiated sexual activity, and circa 20% - after the 8th week following childbirth (Filipek, Marcyniak, Kuran, 2014).

These data are also confirmed by studies carried out by Connolly et al. (Connolly, Thorp, Pahel, 2005). The frequency of sexual activity in the first year after labour is less common than before getting pregnant, that is compliant with studies by A. Sipiński et al. (2005) 56% of interviewees had sexual intercourses more seldom, the frequency increased in 6% of couples, and it did not change in 38%, compared to the time before getting pregnant. 35% of female respondents claimed a decrease in sexual needs (ibidem).

This time may encourage spouses to express their feelings and their interest in their partner in a nonsexual way. a periodical avoiding of genital contacts, recommended to FAM users, may lead to an improvement in erotic bonds, strenthen the passion in a relationship and - accordingly - confirm the stability of their relationship. Wiśniewska-Roszkowska underlines that the attractiveness of the sexual act is increased by previous continence, and Fijałkowski adds that a positive value of understatement protects sexual contacts of spouses from monotony and boredom (Jaroszek, 2012). At the end of the first year, the woman's physical and psychological condition usually gets better, and parents feel more secure in their roles, the frequency of sexual intercourses is similar to the one before getting pregnant (LaMarre, Paterson, Gorzalka, 2003; Ślizień-Kuczapska, Czarnowicz, Rabijewski, 2019).

According to the teaching of the Catholic Church (Lasota, 2012), FAM promote an interpersonal dialogue, lead to maturity of a human being and open them to offer a gift from themselves in love, and fulfill the sense of their existence by procreation. Diving into a follow-up of a woman's body helps spouses to make a conscious and free decision on a subsequent conception (Brożek, 2018). Studies carried out by Machaj et al. (Machaj, Stankowska, 2011) demonstrate that sexuality in the procreative period plays an important role for mor than 50% of mothers, and 44,4% of mothers claim that experiencing pregnancy, childbirth and breastfeeding helped them to become more attractive women. Because - parallel to ecological values - FAM partially fit the criteria of the ideal method in the field of efficacy in putting off the conception and in creating a partnership-based relationship, they may represent a good alternative for methods of temporary sterilization.

Bibliography:

Ashworth, A., Beasley, R., Bown, J., Cambpell, O., Diaz, S. et. al. (1988). Breastfeeding as a family planning method, *The Lancet*, 332 (8621), 1204–1205, doi: 10.1016/S0140-6736 (88)90279-6.

- Bassa B. (2017). Towarzyszenie małżonkom w aspekcie prokreacji, Materiały konferencyjne Jednotlivec a rodina v pastoračnej starostlivosti vo farnosti Výzvy Posynodálnej apoštolskej exhortácie Amoris laetitia, wyd. Mária Šmidová, Bratyslawa, 110-121.
- Billings, E.J. (1972). Syptoms & Hormonal Changes accompanying ovulation; *Lancet:* Feb 5:1972:282-284
- Billings, J.J. (1964). The Ovulation Method, Advocate Press, Melburne, Australia.
- Brożek, M. (2018). Duszpasterskie towarzyszenie małżonkom w pierwszych latach małżeństwa. Rola poradni rozpoznawania płodności. *Teologia Praktyczna*, 19, 191-205.
- Cerańska-Goszczyńska, H. (1997). Naturalne planowanie rodziny, (w:) *Ginekologia w praktyce lekarza rodzinnego*, B. Chazan (red.), 183-191, Warszawa.
- Cerańska-Goszczyńska, H. (2007). Metody rozpoznawania płodności rodzaje, efektywność,
 (w:) Nowoczesne metody rozpoznawania płodności, R. Domżał-Drzewicka, E. Gałęziowska (red.), 31-39, Lublin.
- Connolly, A., Thorp, I., Pahel, L. (2005). Effects of pregnancy and childbirth on postpartum sexual function: a longitudinal prospective study, *Int Urogynecol J & Pelvic Floor Dysfunction*, 16 (4): 263-267, doi: 10.1007/s00192-005-1293-6.
- Dębska, S.L., Szyszka, M., Bączek, G., Dmoch-Gajzlerska, E. (2017). Wiedza studentów kierunków medycznych na temat fizjologii płodności kobiety i naturalnych metod planowania rodziny, *Pielęgniarstwo i Zdrowie Publiczne*, 7 (2),141–147, doi: 10.17219/pzp/64687
- Dmochowski, T., Cerańska-Goszczyńska, H. (2009). Zalety i trudności stosowania metod naturalnego planowania rodziny, *Rozpoznawanie płodności. Materiały edukacyjnodydaktyczne dla nauczycieli NPR, pracowników służby zdrowia oraz zainteresowanych zdrowiem prokreacyjnym*, M. Troszyński (red.), 115-119, Poznań: Bonami.
- Fehring, J.R. (1995). Physician and nurses' knowledge and use of natural family planning, *The Linacre Quarterly, Sage Journals*, 4 (62), 22-28, doi: 10.1080/20508549.1995.11878322.
- Fijałkowski, W. (1987). Ekologiczne problemy rozrodczości, (w:) W. Fijałkowski (red.), *Miłość, prokreacja, odpowiedzialność*. Warszawa: Instytut Wydawniczy Pax.
- Filipek, K., Marcyniak, M., Kuran, J. (2014). Rozpoczęcie współżycia płciowego po zakończonym połogu. *Seksuologia Polska*, 12 (1), 8-14.
- Flynn, A., Brooks, M. (1996). The manual of Natural Family Planning, Allen & Unwin.
- Frank-Herrmann, P., Gnoth, C., Baur, S., Strowitzki, T., Freundl, G. (2005). Determination of the fertile window: Reproductive competence of women – European cycle databases, *Gynecol Endocrinol*, 20 (6), 305-312.
- Frank-Herrmann, P., Heil, J., Gnoth, C., Toledo, E., Baur, S., Pyper, C., Jenetzky, E., Strowitzki, T.& Freundl, G. (2007). The effectiveness of a fertility awareness based method to avoid pregnancy in relation to a couple's sexual behaviour during the

fertile time: a prospective longitudinal study. *Human Reproduction*, 22, 1310-1319, doi: 10.1093/humrep/dem003.

- Hilgers, T. (2004). *The Medical & Surgical Practice of NaProTECHNOLOGY*. Omaha: Pope Paul VI Institute Press.
- Jankowska, M. (2014). Metody regulacji poczęć a więź małżonków i jakość ich związku małżeńskiego, *Kwartalnik Naukowy Fides et Ratio*, 4 (20): 144-161.
- Jarczewska, D.Ł. (2015). Szkodliwość doustnej antykoncepcji hormonalnej, Warszawa: Medipage.
- Jaroszek, W. (2012). Naturalne metody planowania rodziny a namiętność małżonków, *Kwartalnik Naukowy Fides et Ratio*, 2 (10), 79-85.
- Journal Gynecological Endocrinology (2005). 20 (6), 305-312 | Published online: 07 Jul 2009Download citation https://doi.org/10.1080/09513590500097507
- Kaźmierczak, M., Gebuza, G., Gierszewska, M., Michalska, E. (2010). Problemy kobiet w połogu i ich przyczyny, *Perinatologia Neonatologia Ginekologia*, 3 (4), 290-295.
- Keef, E. (1962). Self-observation of the cervix to distinguish days of possible fertility; *Bull of the Sloane Hospital for Women*, 8 (4), 129-136.
- Kennedy, K., Rivera, R., McNeilly, A. (1989). Consensus statement on the use of breastfeeding as a family planning method. *Contraception*; 39 (5), 477-496.
- Kinle, M. (2006). Naturalne planowanie rodziny na świecie i w Polsce, (w:) *Naturalne planowanie rodziny*, M. Troszyński (red.), Warszawa.
- Kinle, M., Małecka, M., Holerek (2006). Naturalne planowanie rodziny w aspekcie historycznym, (w:) Naturalne planowanie rodziny, M. Troszyński (red.), 213-222, Warszawa.
- Kippley, S. (1997). *The Art of Natural Family planning* 4th *edition,* USA, Couple to Couple League; ISBN 0-926412-13-2.
- Klaus, H., Cortés, M.E (2015). Psychological, social, and spiritual effects of contraceptive steroid hormones, *Linacre Q*, 82, 283-300.
- Kramarek, T. (2006). *Rozpoznawania okresowej Płodności Małżeństwa Metoda Objawowotermiczna*, Fundacja Głos dla Życia, ISBN 83-86345-51-9.
- Kramarek, T. (2007). *Naturalne Planowanie rodziny i jego biologiczne uwarunkowania* wydawnictwo: Fundacja Głos dla Życia, ISBN: 83-86345-35-7.
- Kulkarni, J. (2007). Depression as a side effect of the contraceptive pill, *Expert Opin Drug Saf*, 6, 371-374.
- Labbok, M., Cooney, K., Coly, S. (1994). *Guidelines: Breastfeeding, Family Planning, and the Lactational Amenorrhea Method-LAM*. Washington, DC: Institute for Reproductive Health.
- Labbok, M., Perez, A., Valdes, V., Sevilla, F., Wade, K., Laukaren, V., Cooney, K., Coly, S., Sanders, C., Queenan, J. (1994). The Lactational Amenorrhea Method: a postpartum

introductory family planning method with policy and program implications, *Adv Contracept*, 10, 93-109.

- LaMarre, A.K., Paterson, L.Q., Gorzalka, B.B. (2003). Breastfeeding and maternal postpartum functioning, *Canadian Journal of Human Sexuality*, 12 (3-4), 151-169.
- Lasota, K. (2012). http://www.stowarzyszeniefidesetratio.pl/Presentations0/npr1.pdf.
- Machaj, J., Stankowska, I. (2011). Poczucie atrakcyjności seksualnej kobiet w wieku prokreacyjnym po przebyciu ciąży i okresu karmienia, *Nowiny Lekarskie*, 80 (5), 323–333.
- Manhart, M., Duane, Lind, A., Sinai, I., Golden-Tevald, J. (2013). Fertility awareness- based methods of family planning: a review of effectiveness for avoiding pregnancy using SORT, *Osteopathic Family Physician*, 5 (1), 2-8, doi: 10.1016/j.osfp.2012.09.002.
- Marschal, J. (1968). a field trial of basal body temperature method of regulation birth, *Lancet*, 8-10.
- Marschal, J. (1976). Cervical mucus and Basal Body Temperature method Regulating births, *Lancet*, 282-283.
- Mrozowicz, A. (2013). Poradnictwo Rodzinne Archidiecezji Gdańskiej w służbie małżeństwu i rodzinie, (w:) Rodzicielstwo wobec wyzwań współczesnego świata, Ateneum Przegląd Familiologiczny, M. Stopikowska (red.), 21-234, Gdańsk: Ateneum Szkoła Wyższa.
- Ohme-Petres S., FEDRA workgroup (2019). *Natural Family Planning Teachers Training Course, Manual, Theoretical Basis for all NFP Method,* European Institute for Family Life Education, ISBN 978-3-948326-00-5.
- Oinonen, K.A., Mazmanian, D. (2001). Effects of oral contraceptives on daily self-ratings of positive and negative affect, *Journal of Psychosomatic Research*, 51, 647-58.
- Pallone, S.R., Bergus, G.R. (2009). Fertility awareness-based methods: another option for family planning, *Journal of the American Board of Family Medicine*; 22, 147-157, doi: 10.3122/jabfm.2009.02.080038.
- Piejko, E. (2006). The postpartum visit. Why wait 6 weeks, *Reprinted from Australian Family Physician*, 35 (9): 674-678.
- Rotzer, J. (1978). The sympthotermal method: Ten years of change, Linacre Quartely; 358-374.
- Rötzer, J. (2007). Ja i mój cykl, Warszawa: INER.
- Rowland, M., Foxcroft, L., Hopman, W., Patel, R. (2005). Breastfeeding and sexuality immediately post partum, *Canadian Family Physician*, 51, 136-137.
- Sinai, I. Arévalo, M. (2006). It's all in the timing: coital frequency and fertility awarenessbased methods of family planning, *Journal of Biosocial Science*, 38, 763-777.
- Sipiński, A., Kazimierczak, M., Ciesielska, B. (2005). Ocena zachowań seksualnych kobiet karmiących. *Seksuologia Polska*, 3 (2), 52-59.
- Smoliński, R. (2010). Seksualność kobiet w ciąży i połogu, (w:) *Podstawy seksuologii*, Z. Lew-Starowicz, V. Skrzypulec (red.), 133–138, Warszawa: PZWL.

- Stadnicka, G., Łepecka-Klusek, C., Pilewska-Kozak, A., Pawłowska-Muc, A. (2015). Satysfakcja seksualna po porodzie, część I, *Problemy Pielęgniarstwa*, 23 (3), 357-361.
- Stanowisko Zespołu Ekspertów Polskiego Towarzystwa Ginekologicznego w zakresie wykorzystania Naturalnych Metod Planowania Rodziny do celów antykoncepcyjnych (2010). Rekomendacje Polskiego Towarzystwa Ginekologicznego 2006–2011, *Ginekologia Polska*, 2010, 81, 947-949.
- Stover, J., Bertrand, J. Shelton, J. (2000). Empirically based conversion factors for calculating couple-years of protection, *Evaluation Review*, 24 (1), 3-46, doi: 10.1177/0193841X0002400101.
- Sujak, E. (2015). Poradnictwo małżeńskie i rodzinne, Lubliniec: KB Studio.
- Suszczewicz, N., Ślizień-Kuczapska, E. (2012). Antykoncepcja hormonalna dlaczego nie? Medyczny punkt widzenia, Życie i Płodność, 1/2012, 15-33.
- Szturomska-Józwik, L. (2016). Naprotechnologia jako holistyczna medycyna przyjazna rodzinie *Teologia i Moralność*,11, 2 (20), doi: 10.14746/TIM.2016.20.2.13.
- Szymaniak, M., Ślizień-Kuczapska, E., (2016). Metody Rozpoznawania płodności jako istotny element promocji zdrowia prokreacyjnego, *Życie i Płodność*, 7-11.
- Ślizień-Kuczapska, E. (2007). Czy metody rozpoznawania płodności potrzebują nowych technologii? (w:) Nowoczesne metody rozpoznawania płodności wybrane zagadnienia, R. Domżał-Drzewiecka, E. Gałęziowska (red.), 109-120, Lublin: Makmed.
- Ślizień-Kuczapska, E., Sys, D., Baranowska, B., Tataj-Puzyna, U. (2017). Zdrowie prokreacyjne jako zasadniczy kierunek troski o zdrowie rodziny. Wybrane zagadnienia profilaktyki zaburzeń płodności oraz promocji karmienia piersią na tle sytuacji demograficznej Polski, *Kwartalnik Naukowy Fides et Ratio*, 4 (32), 88-111.
- Thijssen, A., Meier, A., Panis, K., Ombelet, W. (2014). Fertility Awareness-Based Methods' and subfertility:a systematic review Facts Views, *Vision in Obgyn*, 6 (3): 113-123.
- Thyma, P. (1976). The Double Check method of natural family Planning; Married life information, *Fall River*, Massachusetts.
- Troszyński M. (2009). Rozpoznawanie płodności. Materiały edukacyjno-dydaktyczne dla nauczycieli NPR, pracowników służby zdrowia oraz zainteresowanych zdrowiem prokreacyjnym, Poznań: Bonami.
- Unseld, M., Rötzer, E., Weigl, R., Masel, E., Manhart, M. (2017). Use of Natural Family Planning (NFP) and Its Effect on Couple Relationships and Sexual Satisfaction: A Multi-Country Survey of NFP Users from US and Europe, *Front Public Health*, 5, 42, doi: 10.3389/fpubh.2017.00042.
- Van Duong, D. (2012). Breastfeeding, Sexuality and Contraception During the Postpartum Period, *Currellt Pediatric Reviews*, 8, 332-338.

- Vande Vusse, L., Hanson, L., Fehring, R., Newman, A., Fox, J., (2003). Couples' views of the effects of natural family planning on marital dynamics, *Journal of Nursing Scholarship*, 35, 171-176.
- Vigil, P., Lyon, C., Flores, B., Rioseco, H., Serrano, F. (2017). Ovulation a sign of health, *Linacre Quarterly*, 84 (4), 343-355, doi: 10.1080/00243639.2017.1394053
- Vigil, P., Blackwell, L.F., Cortés, M.E. (2012). The Importance of Fertility Awareness in the Assessment of a Woman's Health a Review, *Linacre Quarterly*, 79 (4), 426–450.
- Warnock, J. K., Clayton A., Croft, H., Segraves, R., Biggs, F. (2006). Comparison of androgens in women with hypoactive sexual desire disorder: those on combined oral contraceptives (COCs) vs. those not on COCs, J Sex Med, 3, 878-882.
- Wójcik, E. (2016). *Poradnik małżeński. w poszukiwaniu sensu życia*, Warszawa: Oficyna Wydawniczo-Poligraficzna Adam.